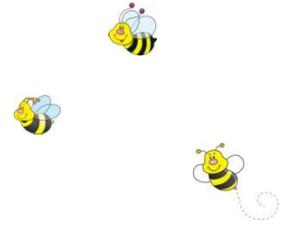


The Skep



President's Corner

Hello Beekeepers!

Last month we learned about the different ways to catch and retrieve swarms. Thank you Bob the Bee Man for your informative talk at the April meeting.

With a wide variety of trees and flowers in bloom the bees are bringing in nectar and pollen!

The May Beekeeper's To Do List includes adding honey supers to the hives and making splits from existing colonies. Now is a great time to get the solar wax melter out and melt down the old foundation that you culled out of your hives when doing spring clean up.

Don't forget to register your hives and sign up for Ohio Sensitive Crop Registry. The deadline is June 1, 2015.

This month we will be taking orders for polo shirts and t-shirts. More information will be available at the meeting. I hope to see you at the next meeting on May 17.

Bruce Deafenbaugh

2015 Membership Roster

As per the Association Bylaws when a member requests a list of current members and their contact information, the roster shall be provided to the membership. I will be printing the 2015 Membership Roster for the May 17 meeting.

If you do not wish for your contact information to be included on the roster please contact Heidi by May 9, 2015.

(330)386-7763

hschmidbauer@columbianamahoningbeekeepers.org

2015 Tentative Meeting Dates & Locations

June 21	Bruce & Andrea Deafenbaugh
July 19	Bruce & Michele Zimmer
August 16	Don Kovach's Parents' Home
September 20	Nick Deemer
October 11	Fellows Riverside Gardens

May Meeting Details

Sunday, May 17, 2015

Potluck Lunch 1:00 p.m. Meeting 2:00 p.m.

Speaker: J. Lee Miller, Past President PA State Beekeepers Association

Hosted by Dave & Marsha Coakley
6071 Elk Rd.

Canfield, Oh 44406

From Rt. 11 North take exit 34 and turn left onto US-224 West. Continue on 224 W for about 5.2 miles. Turn right onto Gault Road for about 125 feet. Turn right onto Elk Road for approximately a half mile. Dave and Marsha's driveway will be on the right. Look for the Bee Meeting signs.

From Rt. 11 South take exit 34, turn right onto US-224 West and follow the above directions to the Coakley residence.

Please bring your own plates, cups and silverware for the potluck lunch.



Colony Increases

Colony Increase. Hive Division. Splits. Three different names for a process that has at least as many variations as it does names. The bottom line is that like most aspects of beekeeping there are many ways to do this and everyone has an opinion on which way is best. The focus of this article is not to discuss why one method is better than another. Let's focus on why a beekeeper should consider splitting a colony and explore some of the options a beekeeper has to choose from.

Splitting a honey bee colony is the process in which a strong colony is divided into two or more smaller colonies. Each of the resulting colonies have a queen or the resources to make one, an adequate supply of honey and pollen, and an adequate supply of nurse bees to care for the brood.

There are many reasons for a beekeeper to perform this task. First, the number of hives increases. This is a much more economical method of increasing the number of hives that you have than purchasing packages or nucs. Second, a beekeeper can raise his/her own queens this way. Third, splitting can be done as a means of swarm prevention. Varroa mite control is another reason to split. By pausing the brood cycle of a colony, a beekeeper breaks the mite's reproductive cycle. When a queen bee is not laying, a foundress mite does not have cells of honey bee brood to lay eggs in. The number of mites is no longer multiplying. (Mel Disselkoen explains the benefits of honey bees outbreeding the varroa mite in the documents on his website.)

The first option of increase is an **even split**. In this instance a beekeeper takes everything in the hive (frames of eggs, emerging brood, honey and nectar) and divides it between two hives. Turn the two hives facing the sides of the original hives. The bees will need to decide which hive they go into upon returning from a flight.

A **walk away split** is another option. A beekeeper takes a frame of eggs, two frames of emerging brood and two frames of honey and pollen, making sure the queen is not on any of these frames, and places them in a nuc. After shaking some additional nurse bees into the nuc, he/she will put the lid on and replace the inner and outer covers of the original hive. After four weeks the beekeeper should inspect the nuc to see if the new queen is laying.

A **typical split** is similar but rather than letting the bees in the nuc raise their own queen, the beekeeper will introduce a new queen. Because this colony will be three weeks ahead of a walk away split in brood production, this type of split may need to be put into a bigger hive than a nuc.

The fourth option is a **swarm control split**. To decrease an overpopulation the beekeeper will remove every frame that has a queen cell and puts it into a nuc of its own along with the appropriate frames of brood and honey. The beekeeper can increase the chances of success by placing more than one frame with queen cells in each nuc.

There are several reasons that beekeepers perform splits, or colony increases. Once a beekeeper decides why he/she wants to try it, the decision of how to go about it becomes easier. In any case, the beekeeper should feed the newly created colonies in addition to providing the frames of honey. Providing food within the hive will alleviate the stress of waiting for nurse bees to become foragers.

Resources:

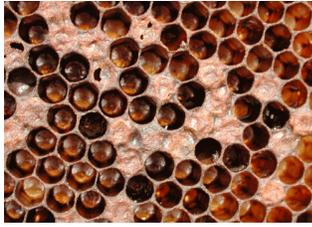
Burns, David (2012). *Lesson 120: A New Method to Better Control Varroa Mites*. Basic Beekeeping Blog. Retrieved April 30, 2015 from <http://basicbeekeeping.blogspot.com/2012/07/lesson-121-new-method-to-better-control.html>

Bush, Michael (2006). *How to Do Splits*. Bush Farms Website. Retrieved April 30, 2015 from <http://www.bushfarms.com/beessplits.htm>

Disselkoen, Mel (2014) International Mating Nuc, Inc. Website. <http://www.mdasplitter.com/>

Iam, Don (2013). *Making Increase*. Kelly Beekeeping Website. Retrieved April 30, 2015 from <https://www.kelleybees.com/Blog/1/Healthy-Bees/262/Making-Increase>

American Foulbrood



American Foulbrood (AFB) is one of the most widespread and destructive of the honey bee brood diseases. This

fatal bacterial disease is caused by the spore forming bacterium known as *Paenibacillus larvae* and will infect even the strongest of colonies because it is not a stress related disease. American Foulbrood spores are highly resistant to heat, cold or chemical disinfectants. They remain viable for more than seventy years in combs and honey. Although adult honey bees are not affected by AFB they easily spread the disease within the hive during cleaning activities and into neighboring hives through robbing and drifting.

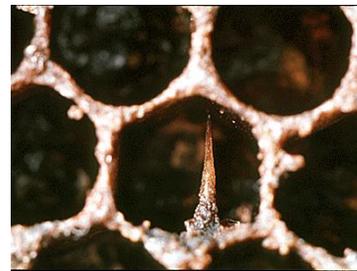
It is important that beekeepers know the signs, symptoms and transmission of American Foulbrood so detection of the disease will occur before the disease is carried to nearby healthy colonies. Examination for AFB should occur in the spring and fall of each year at the very least. AFB can spread rapidly through a colony and can result in significant loss in colony and honey production but it can also be slow to progress and the disease will not develop to the critical stage until the following year.

Honey bee larvae up to two and a half days old become infected with AFB by ingesting the spores that have contaminated their food. The spores germinate in the gut of the larvae and the vegetative form begins to grow. As the bacteria grows it robs the larvae of nourishment and leads to its death. Although the vegetative form of the bacterium dies with its host, the 100 million spores that it produced remain viable. As nurse bees clean the dead larvae from the combs the spores are spread throughout the hive.



A definitive difference between American Foulbrood and European Foulbrood is the timeframe of the death of the larvae. Unlike an EFB infected larva, an AFB infected larva

dies after it is capped in the last two days of the larval stage or the first two days of the pupa stage. A beekeeper will notice the capping of the diseased cell becoming moist or greasy and dark in color and the convex capping will become concave. This sinking appearance happens as the dead larva shrinks within the cell. At this point in decay, the larval remains can be drawn out into a thin rope like thread with a matchstick or toothpick. This is commonly known as a "ropiness" test. Adult bees will often perforate the cell cappings but not always remove the dead larvae. At death the diseased larvae change from pearly white to creamy brown and gradually darkens. At this point in decaying, the brood gives off a sulphurous odor. AFB infected larval remains continue



to dry and become brittle scales that are extremely difficult to remove from the cell. If

death occurs during the pupal stage, the pupae undergo the same changes in color and consistency as the larvae. Additionally, the pupal "tongue" will stick to the top wall of the cell. This presence is another characteristic symptom of American Foulbrood.

Once AFB is suspected, a beekeeper can perform another field test in addition to the "ropiness" test described previously. The Holst milk test uses powdered milk to confirm the presence of American Foulbrood. To perform this test, combine 1/2 teaspoon of powdered milk with 1/4 cup of water and mix thoroughly. Pour the milk into two small,

clear glass vials or other similar containers. Collect a sample from the suspect AFB colony by opening diseased cells and stirring the contents with a toothpick being mindful to gather as much of the larval remains or scale as possible on the toothpick. Place the remains in a vial and shake well. Keep the other vial of milk for comparison. Place the vials in a warm area such as an inside pocket of your bee suit. If the sample contains AFB spores it will clear in about 20 minutes. Laboratory diagnosis can confirm the presence of American Foulbrood if a sample of the diseased larvae is sent to the Beltsville Bee Lab.

The viability of AFB spores requires beekeepers to be vigilant with equipment and tools. Hive tools should be heat treated at least between apiary visits. A efficient way to do this is to lay the hive tool over the open smoker and use a torch to heat it. Infected colonies should be killed then the beekeeper needs to burn and bury the bees and their comb. Hive bodies, bottom boards and covers can be saved by charring the inside portions being careful to include the corners in the charring. Honey should never be fed to bees from an unknown source since the AFB spores could be present.



Terramycin is an antibiotic drug treatment used to suppress the development of the American Foulbrood pathogen but it does not destroy the spores. Once a beekeeper begins using this treatment, it has to be continued indefinitely or the disease will reappear. The treatment must be carried out forty five days before honey supers are put onto hives and again after the supers are removed in the fall. It is important to note that preventative use of antibiotics can lead to the emergence of antibiotic-resistant bacteria and result in antibiotic residues building up in hive products.

American Foulbrood is one of the most devastating and widespread honey bee brood

diseases. Following best management practices and being vigilant when working in the apiary will ensure that beekeepers detect AFB at an early stage and avoid spreading it.

Resources:

Mid-Atlantic Apiculture Research and Extension Consortium (2015). *American Foulbrood* MAAREC website. Retrieved April 25, 2015 from <https://agdev.anr.udel.edu/maarec/honey-bee-biology/honey-bee-parasites-pests-predators-and-diseases/diseases-of-honey-bees/nggallery/image/european-foulbrood/>

Ohio Dept of Agriculture. American Foulbrood Disease Fact Sheet. Retrieved April 22 from http://www.agri.ohio.gov/divs/plant/apiary/Documents/Apiary_Docs_FactSheets.pdf

The Pennsylvania State University. (2011). *A Field Guide to Honey Bees and Their Maladies*. University Park, PA.

Plant Health Australia. (2014). *American Foulbrood*. Bee Aware website. Retrieved April 25, 2015 from <http://beeaware.org.au/archive-pest/american-foulbrood/#ad-image-0>

Scott-Dupree, C. (Editorial Chair). (2000). *Honey Bee Diseases & Pests*. Guelph, Ontario: Canadian Association of Professional Apiculturists.

Photos Courteous of The Food and Environment Research Agency
© Crown copyright 2015

Columbiana & Mahoning County Beekeepers' Association New Website

The new site is now available! When you explore the website you will discover a variety of tools and resources for beekeepers of all experience levels and people who are looking for a way to contact a beekeeper.

Check it out!

<http://www.columbianamahoningbeekeepers.org/>



Association T-Shirt Orders

This year's shirts are ash (grey) with black emblems on the back. If you are interested in ordering shirts please see Andrea Deafenbaugh or call her at (330) 457-0326 . The deadline for orders and payment is Sunday, July 19. Prices are as follows:

Polo Shirts (up to XL)	\$10.75
T-Shirt (up to XL)	\$7.25
Each additional X in size adds an additional \$1.	
Embroidered name and skep on front of either style of shirt	Additional \$4

Bee-worthy Blooms

A sampling of May blooming trees and plants that honey bees use as nectar (N) and/or pollen (P) sources.



American Holly (*Ilex opaca*): N & P
Pollen pellets are yellow.



Blackberry (*Rubus fruticosus*): N & P
Pollen pellets are gray.



Black Locust (*Robinia pseudoacacia*): N & P
A major source of nectar.
Pollen pellets are yellowish-green.

Dandelion (*Taraxicum officinale*): N & P
Pollen pellets are orange.

Tulip Trees (*Liriodendron tulipifera*): N & P
A major source of both pollen and nectar. Pollen pellets are creamy white.

Resources:

Lindtner, Peter. (2014). *Garden Plants for Honey Bees*. Kalamazoo, MI: Wicwas Press.

Tew, James E. *Some Ohio Nectar and Pollen Producing Plants*, Fact Sheet HYG-2168-98. Wooster, OH: Ohio State University Extension.

P.gibellini - Own work. Licensed under Public Domain via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Liriodendron_tulipifera_flower.jpg#/media/File:Liriodendron_tulipifera_flower.jpg

"Rubus fruticosus Luc Viatour" by I, Luc Viatour. Licensed under CC BY-SA 3.0 via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Rubus_fruticosus_Luc_Viatour.JPG#/media/File:Rubus_fruticosus_Luc_Viatour.JPG

Catching Swarms

Our speaker at the April meeting



was association member Bob "the Bee Man" Chmelik. Bob shared his methods for gathering swarms from a variety of

locations and setting bait hives. He showed the group his bee vac and discussed its uses, stressing that even though it is an invaluable tool there are some bee losses associated with it. Bob also offered several helpful tips for swarm catching. He keeps a pillow case with his equipment that he often uses to gather a swarm from small branches. Bob stated that pillow cases are also a great thing to have on hand in the car or truck because they don't take up space but they are perfect for carrying swarms home that you may come across. Another tip that Bob offered was that he has had great success with catching swarms in his traps that are placed five to six feet above the ground.

Once Bob finished, Mike Ferreri showed the dummy boards that he built and added to his hive boxes. Mike used insulation and wood to created tight fitting dummy boards that fill the space of two frames without any bee space above or below them. In doing this he added insulation to his hives and reduced the weight of the boxes. Mike plans to keep us up to date on how this project is working out for him.



Honey Blueberry Muffins

Ingredients:

- 2 cups whole wheat flour
- 1 cup all purpose flour
- 1/2 cup + 3 tablespoons brown sugar
- 1 tablespoon baking powder
- 1/2 teaspoon baking soda
- 1/2 teaspoon salt
- 1/2 teaspoon cinnamon
- 1 cup low-fat greek yogurt
- 1/2 cup whole milk (you may use another fat percentage if preferred)
- 1 teaspoon vanilla extract
- 2 large eggs, at room temperature
- 1/4 cup honey
- 1/2 cup olive OR coconut oil (if using coconut oil, be sure it is liquid form)
- 1 cup blueberries

Instructions:

1. Preheat oven to 400 degrees (F).
 2. Line a 12-cup muffin tin with paper liners; set aside.
 3. In a large bowl whisk together flours, sugar, baking powder, baking soda, salt, and cinnamon; set aside.
 4. In a medium bowl whisk together the yogurt, milk, vanilla, eggs, honey, and oil.
 5. Gently fold the yogurt mixture into the flour mixture, and using a spatula, fold until combined, being sure to mix just until all the flour disappears. Fold in blueberries.
 6. Divide the batter evenly among the prepared muffin tins, place pan in the oven, and bake for 18 minutes, reducing the heat to 375 degrees after 9 minutes of baking.
 7. Allow the muffins to cool for 5 minutes in the pan before carefully transferring to a cooling rack to cool completely.
- Recipe courtesy of [Baker By Nature](#)

2015 Officers

President	Bruce Deafenbaugh	330-457-0326
V.President	Chuck Hatch	330-807-0848
Secretary	Heidi Schmidbauer	330-386-7763
Treasurer	Sandra Hays	330-921-5805
Board:	Don Hays (2015)	330-921-1012
	George Stacy (2016)	330-360-8717
	Joe Schmidbauer (2017)	330-386-7763

2015 Ohio Queen Producers

The following Queen and Honey Bee Producers have generously supplied our association with queen certificates for door prizes. Please show your appreciation when doing business with them.

Williams Honey Bees

Frankfort, Ohio

740-998-4380

[Check out the Williams' Etsy Shop Also!](#)

Mike's Bees and Honey

Forest, Ohio

419-365-9902



Special thanks to our generous suppliers who have provided us with catalogs, donations and door prizes. It means a lot to these folks to hear back from you, so be sure to mention our association when doing business with them:

2015 Supporters

A.I. Root- Bee Culture	Gardner's Apiaries
Basco Inc.	Golden Bee Products
B & B Honey Farm	H & R Apiaries
Beeline Woodware	Heartwood Lumber
Betterbee	Honey Bee Ware
Bee Smart Designs	International Mating Nuc Inc
Blue Sky Bee Supply	Kelley Beekeeping
Brushy Mountain	Koehnan & Sons Inc.
Carbolineum Wood Preserving	Miller Bee Supply
Country Rube's Farm	Plastic Packaging Concepts
Cowen Mfg. Inc.	Queen Right Colonies
Dadant - American Bee Journal	Rossman Apiaries
Dakota Gunness	Valley Bee Supply
Draper's Super Bee Apiaries	Western Bee Supplies
Ernst Seeds	Wicwas Press

Click on the company name to visit their web site.

Article or recipe suggestions and submissions are accepted and appreciated. Please provide them by the second of each month.

Heidi Schmidbauer
870 Center Road
East Liverpool, Ohio 43920
(330)386-7763

hschmidbauer@columbianamahoningbeekeepers.org